

SUMMARY RECORD (PLENARY SESSION)

NAVIGATION SAFETY ADVISORY COUNCIL (NAVSAC)

Fourteenth Meeting

APRIL 18-20, 1997

NEWPORT, RHODE ISLAND

1. BACKGROUND

On call of its Sponsor, Rear Admiral James C. Card, and after public notice in the Federal Register (62 FR 13208), the fourteenth meeting of the Navigation Safety Advisory Council was held on April 18-20 in Newport, RI. The meeting opened on Friday morning in plenary session, and was followed by a Prevention Through People (PTP) public meeting conducted by RADM Card on Friday afternoon. NAVSAC reconvened on Saturday for committee meetings and concluded in plenary session on Sunday.

This report summarizes the Council's deliberations, conclusions and actions during the three-day session. The proceedings of the plenary sessions held on Friday, April 18, and Sunday, April 20 at the DoubleTree Islander Hotel were recorded and a written transcript prepared. Subject to Section 552 of Title 5, United States Code, the records, reports, transcripts, minutes, appendices, working papers, draft studies, agenda and other documents which were made available to and/or prepared by the Council are available for public inspection and copying at the office of the Executive Director, Margie G. Hegy, U.S. Coast Guard (G-MOV-3), 2100 Second Street SW, Washington, DC 20593-0001. An attendance list is attached as Appendix I.

2. OPENING OF MEETING

Chairman Anthony Fugaro called the meeting to order at 8:00 a.m. on Friday, April 18, 1997. NAVSAC Sponsor RADM Card welcomed the members and thanked them for the advice they have given the Coast Guard. He also expressed his best wishes to the Council members as he will be passing the NAVSAC sponsorship to RADM Bob North, his successor at Headquarters, when RADM Card reports to his new assignment in two weeks as Pacific Area Commander.

RADM Card presented certificates of appreciation to Mickey DeHart, Mike Nesbitt, Gene Reil, Mitch Stoller, Don Sheetz, and Ann Adams, whose membership terms expire on June 30, 1997. He thanked Chairman Fugaro, Mike Nesbitt and Allison Ross for their participation in the "ALLSAC" meeting held in Washington in March 1997. He thanked Gene Reil and Mike Nesbitt for their help in working with people locally on the Coast Guard's "Customer Satisfaction Survey". And, he also thanked Allison Ross and Mickey DeHart for their help at an upcoming RTCM conference to roll-out the "Ports and Waterways Safety System" (PAWSS), the VTS program that replaced VTS 2000.

The Summary Record from the December 1997 meeting was unanimously adopted.

CAPT Barney Turlo, Captain of the Port (COTP), Providence, RI, provided an overview of MSO Providence and partnering as a vehicle for resolving waterways management issues. His COTP zone extends from the Connecticut-Rhode Island border around to just south of Plymouth. CAPT Turlo talked about the port safety teams, the Regional Risk Assessment Team (RRAT), and the boating safety subcommittee formed under RRAT, which have been formed to work with waterway users and stakeholders to address safety concerns and other waterways management issues. Prevention is his number one concern and an aggressive port state control program plays a major role. He also stressed education as a key element to reducing vessel mishaps and conflicts between waterway users.

3. COMMITTEE REPORTS

A. REPORT OF THE COMMUNICATION/DUPLICATION WORKING GROUP

Captain Allison Ross reported as Chair. The working group was formed at an earlier meeting when concern about duplication of effort and lack of communication between councils was raised. Captains Ross and Pillsbury met with RADM Card when he first became NAVSAC's sponsor to discuss NAVSAC's concerns. RADM Card responded by holding an "ALLSAC" meeting of the Executive Directors, Council Chairs, and PTP Committee Chairs of NAVSAC, TSAC, CTAC, NOSAC, FISHSAC, MERPAC, and NBSAC to address these issues.

The first issue discussed was sharing information with other Councils. The following solutions were offered: (1) distribute updated member phone and fax information; (2) circulate updated rosters of PTP Committee chairs and committee members; (3) distribute internally to Council members rosters of members with affiliations; and (4) circulate schedule of meeting and meeting agendas. It was also agreed that summary records would be circulated amongst councils and that a standardized format was not necessary. A NAVSAC member suggested that each summary include a one page executive summary.

The second issue discussed was duplication of effort which was not necessarily bad as each council provided a different perspective. It was agreed that councils must recognize their limitations and defer to the expertise of other councils when appropriate. Duplication of issues should be considered on a case-by-case basis and committees integrated on overlapping issues. The designation of a lead council for issues was not considered necessary. This may occur naturally in some instances, and the Coast Guard should decide when it may be appropriate.

The PTP Committee chairs felt that the teleconference held earlier was a good way to bring the other councils up-to-date on PTP issues they are working on.

There was also consensus that each council should drive their own agenda and not rely on the Coast Guard to develop one. It was also agreed that it is the responsibility of council members to disseminate council information and decisions to the segment of the marine community they represent.

B. REPORT OF THE RULES OF THE ROAD COMMITTEE

(members and participants appear in Appendix II of this Summary Record).

Vice Chairman Donald Sheetz reported as Chairman of the Committee. The Committee had two taskings. The first, was to look at Rule 5 – Lookout and its applicability to “single-handed” or “solo” sailing. At issue, what are the lookout requirements for solo sailing and are solo sailors exempt from the Rules of the Road. The Committee was asked to review a Marine Occurrence Report issued by the Canadian Transportation Safety Board on the collision between the F/V OLIVE MARIE and the American racing sailboat COYOTE. After much discussion and debate over the definition of solo sailing and whether there should be a distinction based on the length of the voyage, the following resolution was passed by a vote of 11 for and 6 against:

[97-01] Solo sailing is an inherently dangerous activity. Rule 5 is explicitly clear that the requirement for a proper lookout applies to “every vessel”. This includes the solo sailor.

Ms. Hutto offered the following explanation of her “NO” vote:

1. I agree with and support the second sentence of the resolution, which states that Rule 5 applies to every vessel, including “solo sailors.”
2. I disagree with the first sentence of the resolution which does not clearly define the term “solo sailing.” The committee focus was on long-distance solo sailboat racing/sailing. Discussion of the resolution during the Plenary session led me to believe the term “solo sailing” could be misinterpreted in the future, leading to unforeseen and unintended conclusions. My specific concern is that it might be taken to include commercial inland towing operations which maintain a one-person navigation watch. This was not intended by the committee. Because the vote was taken without first modifying or deleting the first sentence of the resolution, I voted “NO”.

The second issue before the Rules of the Road Committee was: “are the passing signals in Rule 34 clear to mariners when confronted with the scenario presented in the investigation report, i.e., three or more vessels meeting, crossing and/or overtaking simultaneously?” The Committee was asked to review a Board of Investigation Report of a collision between the M/V COLUMBUS AMERICA and the M/V NEPTUNE JADE, and discuss Rule 34 specifically to determine if it provides adequate guidance to mariners in the situation at hand, or if the lack of clarity may have contributed to the casualty. The Committee was also asked to discuss other Rules of the Road violations

deemed appropriate in the case. The Committee arrived at the following conclusions:

- Failure of the COLUMUS AMERICA to use the maneuvering and warning signals when passing/meeting the sailing vessels and the tug was not a causal factor in the collision with the NEPTUNE JADE.
- When three or more vessels meet, overtake, and/or cross, Rule 2, the rule of special circumstances, may apply.
- We must consider all the rules at the same time, not individually: Rule 34 must be considered within the context of the Rules.
- Rule 34 is sufficiently clear in and of itself. It provides adequate guidance to the mariner.
- Since Rule 34 did not apply in this situation, the second part of question 2 is immaterial.
- Overall situational awareness must be considered in the passing/meeting situation with the sailing vessels and the tug and with the NEPTUNE JADE.

The Committee found that the following Rules were also violated:

In ANY condition of visibility:

- Rule 5: Lookout
- Rule 6: Safe Speed
- Rule 7: Risk of Collision
- Rule 8: Action to Avoid Collision
- Rule 9: Narrow Channels

In Restricted visibility:

- Rule 19: Conduct of Vessels in Restricted Visibility
- Rule 35: Sound Signals in Restricted Visibility

C. REPORT OF THE PREVENTION THROUGH PEOPLE (PTP) COMMITTEE

(members and participants appear in Appendix II of this Summary Record).

Captain Michael Nesbitt reported as Chairman of the Committee. The issue before the Committee was “applying the PTP philosophy and guiding principles into all NAVSAC deliberations on issues for which they advise the Coast Guard.” The Committee was asked to develop a vetting process to ensure consistent application of PTP principles in NAVSAC deliberations. Using the IMO Flowchart for the Human Element Approach Process (HEAP), the Committee developed the Flowchart for PTP Issues in Appendix III of this Summary. They also used the S/S CORNUCOPIA situation regarding a change in management and reduced crew training to help develop the flowchart. The Committee was concerned about the incident as reported in newsclippings and presented the following resolutions which passed unanimously:

[97-02] The S/S CORNUCOPIA case and all issues involved, as described in the letter received by the Council, are referred to the U.S. Coast Guard for appropriate action and report back to the Council.

[97-03] Recommend the adoption of the flowchart as developed by the PTP Committee to be used by all committees to address all issues under consideration ensuring human element factors are evaluated.

The Committee also continued its discussion on “near miss” information and its use in the industry. This issue keeps coming up in various forums, along with the data collection issue and needs to somehow be resolved. This is an important issue and people have problems even agreeing on what “near miss” means. They also discussed whether the “Nine switches” that were covered at the last meeting could be used as a tool for better understanding the issues and developing solutions. The Committee would like to see the “Nine Switches” on the web page as it can be extremely helpful in investigating accidents and determining the root causes. And, they continued their discussions on the development of a web page on PTP issues and lessons learned.

Captain Nesbitt reported that there is a PTP page on the Coast Guard’s web site. There was disappointment regarding the page not being kept current and being an advertisement and not information sharing. The Committee would like it to be simple to access, current with the name of the person maintaining it, and an interactive format. The need for anonymity was considered crucial so companies could share information without repercussions. The ability to screen out nuisance input was considered important. One of the other Councils are working this issue so NAVSAC should stay engaged. The web page is not to be a sole source database for the collection of incidents and near incidents. It is for people to say we had this incident and identified the problem. Other companies may have the same problem and can find out how other companies resolved it. It should be designed to share lessons learned.

D. REPORT OF THE NAVIGATION EQUIPMENT COMMITTEE

(Members and participants appear in Appendix II of this Summary Record).

Captain Allison Ross reported as Chairman of the Committee. The issue before the Committee was vessels that lose propulsion or experience steering problems during transit, and whether it is a national problem. The Fifth Coast Guard District, Portsmouth, VA, is concerned about the number of vessels losing propulsion or experiencing steering problems while transiting and wants to develop non-regulatory preventive measures. In an effort to determine the causes of these casualties and assist in the prevention of similar casualties in the future, they analyzed propulsion casualty data. The Committee was asked to review the “Analysis of Propulsion Casualty Data” conducted by the Fifth Coast Guard District and provide their assessment of its usefulness as a risk management tool. They were also asked to answer the following questions: (1) how could you best utilize the data; and (2) is other data needed to assess the causes of the casualties and assist in prevention of similar

future casualties. The Committee was also tasked with reviewing the “Guide for Preventing Propulsion and Steering Failures” produced by the MSO/Group Philadelphia and the Mariners’ Advisory Committee of Bay and River Delaware.

The Committee agreed that the analysis conducted by the Fifth District was simple and general in nature. It had some good information but it could not be used for any sort of risk analysis because the data was too general and the Coast Guard’s data collection capability is in its infancy stage. The study is limited in its usefulness because it only captures reported incidents. A large number of propulsion/steering loss cases are not reported. Other studies have been done at MSO Long Beach/Los Angeles area and in the Eighth Coast Guard District.

The Committee agreed that this is a national problem. They identified the categories of the problem to include, but not limited to: failure of equipment, inherent design limitations and human factors. The Committee felt that there were initiatives underway now directed at this problem. The initiatives discussed were the STCW, ISM Code, port state control, and the MSO Philadelphia checklist. The Committee agreed that MSO Philadelphia’s checklist was a step in the right direction but didn’t think it would really accomplish the task completely. The Committee offered the following recommendations:

- Shift focus within BRM (bridge resource management).
- Fatigue of engineers/engineering watch standers.
- State Pilots: (1) Expand foreign tanker assessment survey; and (2) Advocate dialog between COTP/Pilot groups.
- Conduct outreach to Port Safety Committees/APA/USCG. District Commander to survey feedback – port specific.
- Look at pre-reporting system in place.
- Review methods of Canadian Coast Guard on port state control.

Captain Ross said the Committee had more work to do before they could offer solutions, regulatory or non-regulatory, to this problem.

4. INFORMATION BRIEFS

A. PTP IN THE RECREATIONAL BOATING SAFETY PROGRAM AND REQUESTS FOR COMMENTS ON NEED FOR MANDATORY EDUCATION FOR RECREATIONAL BOATERS AND MANDATORY PFD WEAR

CAPT Tony Stimatz, U.S. Coast Guard, Chief, Office of Boating Safety

The Coast Guard Boating Safety Program (RBS) is taking a risk-based management approach. They are tasked with helping the Commandant achieve his strategic safety goal to “eliminate deaths, injuries and property damage associated with maritime transportation, fishing and recreational boating.” An intermodal comparison of transportation fatalities shows that recreational boating is the second leading cause of

transportation fatalities after highway transport. On an average, there are over 835 deaths yearly. Drowning accounts for over 75 percent; operator controlled factors were involved in 78 percent; alcohol was reported in 20 percent; and 70 percent resulted from falls overboard or capsizing.

The Coast Guard has devised a new Measure of Effectiveness (MOE) for the Recreational Boating Safety Program (RBS): $MOE = \text{Incidents/Hours of Exposure}$. This is risk based and incident driven. It captures exposure to risk and is intermodally comparable.

CAPT Stimatz indicated that his office is working with NBSAC to draft requests for comments on mandatory boater education and mandatory PFD wear. Several major issues such as “who are the target population(s), vessels, operators” and “what are minimum knowledge factors” arise when you start talking about mandatory boater education. Factors to consider when you talk about mandatory PFD wear include vessel stability, types of activity, vessel design, persons involved, operating environment, and weather. CAPT Stimatz encouraged NAVSAC members to comment on these very important issues.

In response to a question regarding what the states should be doing versus the Feds, CAPT Stimatz said that the RBS program is unique because the Coast Guard doesn't execute it in the field, 99 percent of the effort is done by the state. He indicated that Federal laws and regulations are a code of last resort. The Coast Guard works with state boating law administrators and coalitions of insurance companies and recreational boating safety coalitions to develop appropriate standards. Funding is a tool that also gets their attention.

B. INTERNATIONAL SAFETY MANAGEMENT (ISM) CODE

Mr. Robert M. Gauvin, U.S. Coast Guard, Project Manager, ISM Implementation Team

The concept of a safety management system, which is a documented procedure or process where the management of a company has written down its policies and procedures concerning safety or for its quality in the management and operation of its business, started in 1986 after a couple vessel incidents.

In 1993, by Resolution 741, IMO adopted Chapter IX of the 1974 SOLAS convention which mandated a safety management system for vessels involved in international transit. The Coast Guard was given authority in the “1996 Coast Guard Authorization Bill” to enforce the requirements of Chapter IX of SOLAS. Until July 1, 1998, compliance is voluntary. Public vessels are exempt from the ISM Code. On July 1, 1998, compliance is mandatory for vessels subject to SOLAS which are all passenger ships and passenger high-speed craft (over 300 GT and carry over 12 passengers in international trade); oil, chemical and gas tankers over 500 GT; and bulk carriers and

cargo high speed craft over 500 GT. On July 1, 2002, it will be mandatory for other cargo ships over 500 GT and self-propelled mobile offshore drilling units over 500 GT.

The Coast Guard has taken several actions to implement the ISM Code. Initially, a public meeting was held in October 1994 to let the public know how the ISM Code was going to be mandated. The public asked for an ISM Code implementation work group which has representatives from the Passenger Vessel Association, the Independent Drilling Contractor's Association, the U.S. Chamber of Shipping, and deep draft and offshore supply vessels. Thirteen representatives are working with the Coast Guard to address issues associated with ISM Code implementation.

A NVIC 2-94 was issued to set up a voluntary program using the ISM Code as a basis for certification. Public meetings were held in October and November 1995 to educate the public and listen to their comments. Letters have also been sent to industry notifying them of exactly what they should be doing to come into compliance. In addition, there are industry education programs that are provided by a number of different private organizations. The Coast Guard also posts information on the G-M home page on the world wide web. The address is: <http://www.dot.gov/dotinfo/uscg/hq/g-m/gmhome.htm>. Every effort is being made to work with companies to ensure they meet the deadline for compliance. The date for compliance is mandated by IMO and Congress and will not be changed.

C. OVERVIEW OF MARINER TRAINING STANDARDS, MODEL COURSES, GUIDANCE TO TRAINING FACILITIES, SIMULATORS AND BRIDGE RESOURCE MANAGEMENT

Mr. Scott Szczepaniak, U.S. Coast Guard Regional Exam Center, Boston, MA

In 1993, the Coast Guard decided to take a look at the merchant marine licensing and documentation program, in its entirety, and take the program, which is based on World War II philosophy, technology, and bureaucracy, and bring it into the modern age. A focus group was formed to chart the future of the program. They conducted a study "Licensing 2000 and Beyond", which created a road map for the future of the licensing program. The report paralleled a lot of the same ideas that IMO was working on as it moved toward the 1995 STCW amendments, and some of the Licensing 2000 recommendations have been implemented. The primary concern of the focus group was that the goal of the licensing program be to ensure a more competent mariner. The way we train and certificate mariners to make a safer and cleaner marine environment was also being looked at both internationally and domestically.

The Coast Guard licensing program currently allows Coast Guard approved courses to meet required training and to substitute for sea service. Substitution of the approved courses for Coast Guard exams is also allowed. The Coast Guard role in this process is quality assurance by administering license exams, reviewing and approving courses, and then auditing the courses in an oversight capacity to ensure the courses are being taught and the training objectives are met. The program is shifting away from Coast

Guard administered license exams toward third-party marine educator quality training. A Quality Action Team (QAT), made up of various people involved in the licensing program and representatives from all areas of industry, was chartered to develop model courses where they don't exist and to better train Coast Guard resources to conduct oversight and audit functions. The QAT is also working on customer standards, which is to provide timely services at the REC in a professional manner.

Captain Sanborn expressed concern about the integrity of the new program and the clear conflict of interest, i.e., a union school where a union member is paying dues into the institution. She feels the new system is being rushed before the regulations and the network for appropriate oversight is in place. Real potential exists for "boiler licensing mills in this country" and creating the potential for incompetent mariners. Captain Sanborn agrees that the current exam is not perfect, but it is impartial. She invited the Coast Guard to the Merchant Marine Academy to hear the concerns of fellow educators.

Mr. Szczepaniak said he shares her concerns about the integrity of the program. He pointed out that the only underlined text in the "Licensing 2000" report parallels these concerns. It is arguable that the cart is before the horse, but right now the Coast Guard's licensing program is primarily focused towards quality standards, standardized courses, and uniform oversight in auditing the various courses. REC Boston is hosting its Second Annual Marine Educators conference in New Bedford on May 20. This is a forum for marine educators to have round table discussions and share concerns with Coast Guard Headquarters and the National Maritime Center, to tell success stories and look at flaws in the system.

Because of the numerous concerns about the changes in the licensing program, the following resolution was proposed and unanimously approved:

[97-04] NAVSAC strongly recommends that the issue of licensing and examination be added to the next NAVSAC agenda so we can look at it.

Mr. Szczepaniak reminded NAVSAC that MERPAC's tasking is to advise the Coast Guard on issues related to mariner licensing and training. They have expressed the same concerns he heard from NAVSAC. Members were encouraged to submit comments on the proposed rulemaking which will be published soon.

D. GMDSS

Mr. Joseph Hersey, U.S. Coast Guard Navigation Center, Chief, Spectrum Management Division

The GMDSS telecommunications architecture for ships will be fully in effect on February 1, 1999. The Coast Guard is considering a legislative proposal to require GMDSS out to 12 miles, instead of our traditional 3-mile territorial sea.

One of the components of the GMDSS is NAVTEX, which is a means of printing maritime safety information, weather warnings, navigational warnings to ships and gives them voice channels. It has been required on ships since 1993. Another component is digital selective calling (DSC) equipped radios. GMDSS has taken the existing single site band marine radio and adapted it with DSC. The Coast Guard is upgrading VHF national distress system, which should be complete by 2002. DSC gives you the capability to dial up an individual radio and making an individual call without other people hearing the traffic that is going on. You can also call a group of ships or on all ships, if you don't know its name. It uses a nine-digit identity assigned by the FCC. It has a provision for distress, urgent, safety and routine calls. The Coast Guard should have the capability to receive these calls by 2002, even though there are some radios now that have the capability.

Mr. Hersey indicated that the Coast Guard has concerns about the limited number of VHF channels in the U.S. As we try to expand use for VTS, transponders or other purposes, we are having difficulties finding channels. They are looking into "narrow banding" the band, cutting 25 kilohertz channels that they now operate at, to 12 1/2, thereby doubling the number of channels available. They are looking to RTCM to come up with standards for the VHF radio that will eliminate interference from pagers and cellular phones. The filter was a fix that worked on the Mississippi River, but probably not in other areas. The FCC has no rules or reserve standard so you have no way of knowing whether the radio you buy is going to be affected by pagers. FCC won't move pagers to solve the problems if they are operating legally, which most of them are. GMDSS information is on the world wide web with the GPS stuff at the Coast Guard Navigation Center.

E. ECDIS STANDARDS - WHERE DO WE STAND?

LCDR Bobby Lam, Chief, Navigation Products Branch, Coast Guard Navigation Center

The primary function of ECDIS is to contribute to safe navigation. The second main function is that ECDIS have adequate backup arrangements to satisfy SOLAS paper chart requirements. There are four documents associated with ECDIS: IMO Resolution A.817, IEC publication 1174, and IHO special publications S-52 and S-57.

The IMO Resolution essentially specifies the performance standards for certain components and functions of ECDIS and was adopted in November 1995. It serves as the regulatory policy governing ECDIS for national administrators. The key components covered in the standard include display, updating, scale of charts colors and symbols, chart accuracy, power supplies, and important features of route planning, monitoring and voyage recording, equipment interfaces, performance test, alarms, an backups. The backup arrangement was formally adopted by IMO in 1986 and will be incorporated as an appendix to Resolution A.817.

The International Electrical Technical Commission (IEC) publication 1174 is the

operational performance requirements, i.e., the methods of testing and required testing results for ECDIS.

The International Hydrographic Organization (IHO) publication S-52 contains specification and chart content and display aspects of ECDIS. It was issued in December 1997 and provides guidance for updating charts and symbols. IHO publication S-57 is the IHO transfer standard for digital hydrographic data. It essentially identifies the object catalog, product specifications and the data updating profile. It was adopted in 1992.

LCDR Lam explained the difference between ECDIS and ECS (electronic chart system). An ECDIS has IMO performance standards and ECS does not. There are currently RTCM guidelines for ECS. ECDIS has defined data and testing standards. Currently an ECDIS does not exist in the U.S. The Coast Guard buoy tender JUNIPER has ECS. It does not have the electronic nautical chart required by IMO for an ECDIS.

F. NOAA'S CHARTING PROGRAM - WHERE THEY ARE NOW AND WHERE THEY ARE GOING

Captain Dave MacFarland, Chief of Marine Chart Division, NOAA

NOAA is responsible for roughly 3.4 billion square nautical miles for the U.S. and its territories. They produce about a thousand charts to cover this area. Ninety-five percent are designed for the commercial mariner and five percent for the recreational boater. During a recent reorganization, his office picked up the tide and current effort.

NOAA is moving rapidly into partnerships and contracting out. Last year's contracts totaled seven million dollars. Off-the-shelf technology has allowed NOAA to modernize its chart production system. They are focusing on three areas: (1) speed the data to the customer; (2) provide products that have increased utility to the customer; and (3) replace old and obsolete information on the charts. In the last four years, they have doubled chart production from 194 new editions to 360 new editions annually. There should be no chart in 1998 that has more than 30 notice to mariner corrections. Time for new chart editions has decreased from 47 weeks prior to 1994, to 12 weeks. By the end of 1997, it will be down to 6 weeks. By 1999 all charts will be in continual maintenance which means as the data is received it will be updated weekly and will be available to be printed on demand.

With regard to improving products and giving greater utility, the paper chart is still in demand. There are public concerns that NOAA will cancel the paper chart in favor of digital products. The imaging of older charts has been reengraved with new technology at very little cost to NOAA. The coverage has been improved and charts are being developed as required. Raster charts were a byproduct of NOAA's production process. It is very inexpensive and quick. All 1,000 raster charts are out there now and updated every time a new edition is added. Version 2 will be out in 1997 and will include an updated Coast Pilot. Over 500,000 raster charts have been sold, roughly in the past

year. There are 15 raster based navigation software package vendors right now. There are 6,000 raster chart display systems in use now, by aircraft carriers, submarines, the Coast Guard, tugs, recreational boaters and commercial mariners.

Mariners like raster because it is available now and DGPS can be incorporated to provide real-time positioning information. You can do voyage planning and program off track alarms. You can also manually identify objects you want to stay away from and program it to sound an alarm. At least two manufacturers have incorporated radar displays.

NOAA, Great Britain, the UK and Australia are pushing for IMO acceptance of a raster chart display system to be equivalent to the paper chart and suitable for carriage requirements. It is a contentious issue as many hydrographic offices feel threatened by them. NOAA views the raster chart as part of an evolutionary process in terms of functionality for the mariner. It is great for now, but will not carry us too far into the 21st century. NOAA is looking at producing a vector data set, which meets IMO's S-57 format requirements. Captain MacFarland said it will be about 5 years. In the interim, they will be producing a hybrid chart, which is a combination of raster chart For orientation purposes and a select set of vector themes. It will be limited to harbors, approaches and transit lanes for the 41 major U.S. ports. The hybrid chart will contain the information that mariners said they need with bridge abutments being the number one item. The hybrid chart provides greater accuracy that is suitable for DGPS positioning and will be complete by December 1998.

Captain MacFarland spoke briefly on the accuracy of chart data, pointing out that NOAA relies on other sources for 90 percent of the information that it puts on NOAA charts. He said NOAA is interested in partnering with industry to provide accurate information to bring charts up-to-date.

G. ECDIS IN CANADA

Dr. Lee Alexander, Visiting Scientist, Canadian Hydrographic Service

Canada has gotten on with the business of implementing ECDIS in Canadian waters. They are basically looking at the same services, such as 10 meter accuracy, but are also looking into integrity and reliability issues. There are currently over 600 ECS equivalents to paper charts that cover all commercial waterways and shipping routes in Canada. The charts are being used by approximately 110 different vessels equipped with ECDIS systems. They can only be updated manually.

The Canadian internal vector format NTX is going to be replaced with the international standard. Updating service will be primarily provided via the Internet. All Canadian paper charts are now available in raster format. Raster charts are used in ECSs only, not ECDIS.

Canada has functioning ECDIS systems now but they are not IMO compliant.

Canadian mariners hold periodic workshops to discuss different types of technology and services and to keep up with what is going on.

5. MEMBER ROUNDTABLE

Chairman Fugaro led the member roundtable discussion. Vice Chairman Sheetz pointed out the value of the roundtable in that it was items from the last meeting that enabled NAVSAC to find out how far forward this licensing issue was going. Chairman Fugaro added that NAVSAC needs timely notification if the Council is to be effective. Captain Cattalini said there needs to be some type of mechanism where the Coast Guard feeds us too much information. It is difficult for a group of dedicated experts to meet once every six months without really knowing what's been going on throughout the Coast Guard in the previous six months and stumble across some of these things and try to give timely advice to the Coast Guard.

Ms. Hutto responded by pointing out that the issue of licensing changes is not new and she is shocked that everyone was not aware of it because she thinks information has been sent previously. It seems that members were sent copies of "Licensing 2000". It has also been publicized in many ways. Communication is a major problem.

Captain Nesbitt suggested that the subject of publication of depths at berths and private channels be revisited. NAVSAC addressed it previously in 1991, and it appears that no action has been taken. Maybe the channels can be surveyed or if any dredging is done, the depth information can be published.

Captain Sanborn suggested the Council look at the under keel clearance issue. She indicated that it is a big problem in CA and there is lots of controversy everywhere on this issue. Captain Ross pointed out that this issue was previously addressed by NAVSAC and was rejected.

Captain Gregory wants the licensing and training issue on the next agenda. He said it might be interesting to have a future meeting at a training facility like Kings Point to take advantage of our concerns. Ms. Hutto added that the current changes in the program are because of major complaints that have been expressed regarding the Coast Guard licensing exam as being inappropriate, not really testing what needs to be tested, etc. She agrees there is a serious problem with oversight of approved courses to ensure the classes meet their objectives, but she believes training is an important aspect. She also asked that the Council keep in mind that the blue water and brown water folks are two different worlds when these issues are discussed.

Vice Chairman Sheetz recommended that NAVSAC take a fresh look at charting issues as it has been awhile since they have been on the agenda.

Captain Reil applauded the concept of Coast Guard Customer Satisfaction Committee as a good start, but it is mostly focused on VTS and data collection. He feels that the

Coast Guard could have customer satisfaction in everything it does, all the time. Vice Chairman Sheetz added that he came away from the Committee meeting feeling that NAVSAC had not provided the Coast Guard what they needed to hear. He felt that too much time was probably spent on the survey itself. He thinks we need to rethink the ideas or think through additional ideas that need to be added to the survey rather than the form. He thinks the Coast Guard would go away at least satisfied if NAVSAC could provide additional information.

Captain Welsh asked that the licensing issue include the limited licensed mariners. Right now they are in conflict between U.S. domestic regulatory tonnage and the ITC. Another concern is that in most cases a person cannot serve as AB, serve time out, qualify for a license on the limited tonnage ships and get enough tonnage to satisfy the STCW certificate.

Chairman Fugaro asked that the National Waterways Management Plan be put on the next agenda.

Mr. Hung asked for an update on VTS outreach at the next meeting.

Captain McKamie provided an update on two new business items presented previously that he is working on: (1) radio interference and VHF congestion; and (2) gambling and passenger vessel safety issues. Captain McKamie has made some calls and is getting feedback from people on the radio interference issue. With regard to the second issue, gambling and passenger vessel safety, he is still trying to collect data on it. He has learned that the issue is a local one as vessels are different in Miami than in St. Louis, and perhaps different on the west coast as far as safety issues are concerned. And there are two separate areas of safety issues –one for the crew and one for the passengers. Dr. Grabowski has agreed to assist in collecting more data on this, in fact she is doing a study on passenger vessels. The issue is still being developed and he asked members to let him know if they wanted to assist. He is looking at both underway and landlocked gambling vessels.

6. ADJOURNMENT

Chairman Fugaro adjourned the meeting at 4:30 p.m.

Prepared by:

Approved by:

MARGIE G. HEGY
Executive Director
NAVSAC

ANTHONY F. FUGARO
Chairman
NAVSAC

APPENDIX I

NAVIGATION SAFETY ADVISORY COUNCIL PLENARY SESSION APRIL 18, 1997

LIST OF ATTENDEES

Members Present

H. Ann Adams	John Ralston
Mickey Dehart	Martha R. Grabowski
Rodney Gregory	Allison Ross
Betty Hutto	Reginald E. McKamie, Sr.
Michael P. Nesbitt	Pamela Hom
F. Eugene Reil	Ann Sanborn
Donald J. Sheetz	Mitchell S. Stoller
Gary Welsh	Alvin Cattalini
Anthony F. Fugaro	Gretchen Grover
Stephen Hung	

Members absent

Charles Pillsbury	Vincent Fumo
-------------------	--------------

Coast Guard and Public Attendees

RADM James Card, U.S. Coast Guard, NAVSAC Sponsor
CDR Chris Nettles, U.S. Coast Guard, Acting NAVSAC Executive Director
Ms. Diane Schneider, U.S. Coast Guard, NAVSAC Executive Secretary
CAPT Robert G. Ross, U.S. Coast Guard Headquarters
Mr. Edward J. LaRue, Jr., U.S. Coast Guard Headquarters
CAPT David MacFarland, NOAA, NOS
CDR Rick Marriner, NOAA, NOS
CAPT Bruce B. Fisher, Northeast Marine Pilots
Mr. Matthew D. Wetmore, Jamestown Marine Services
Mr. George Matthews, U.S. Coast Guard, MSO Providence
Mr. Mark A. True, U.S. Coast Guard, MSO Portland
Midshipman Alexander C. Foos, U.S. Merchant Marine Academy
Midshipman Douglas C. Petrusa, U.S. Merchant Marine Academy
LT Jeffrey M. Ramos, U.S. Merchant Marine Academy
LCDR Keith D. Ward, U.S. Coast Guard, MSO Providence

LT Joseph L. Duffy, U.S. Coast Guard, First District (m)
Mr. Harvey Wade, Canadian Coast Guard.
Mr. Vincent Rossi, Senator Fumo's office, Philadelphia, PA.
CAPT Pete Mitchell, U.S. Coast Guard, Group/MSO Long Island Sound
Mr. Slater Allen

APPENDIX II
NAVIGATION SAFETY ADVISORY COUNCIL
COMMITTEE MEETINGS
APRIL 19, 1997

ATTENDEES

Committee: Rules of the Road Committee

Chair: Donald Sheetz

Members:
Ann Sanborn
Mitchell Stoller
Betty Hutto
Gene Reil
Tony Fugaro
Reginald McKamie
Rodney Gregory
John Ralston
Mickey Dehart

Coast Guard
Representatives: Ed LaRue
Diane Schneider

Others attending:
Vincent Rossi
Capt. Bruce B. Fisher
Capt. Barney Turlo
Harvey Wade
Alexander Foos
Chris Young

Committee: Prevention Through People Committee

Chair: Mike Nesbitt

Members: Pamela Hom
Martha Grabowski
Ann Adams
Allison Ross
Gretchen Grover
Alvin Cattalini
Steve Hung
Gary Welsh

Coast Guard

Representative: CDR Chris Nettles

Others attending:

CDR Rick Marriner
Capt Dave McFarland
Douglas C. Petrusa
LT Jeffrey Ramos

Committee Customer Satisfaction

Members: Don Sheetz
Betty Hutto
Ann Adams
John Ralston
Gretchen Grover
Mitchell Stoller
Tony Fuguaro

Coast Guard

Representatives: Diane Schneider, Facilitator
CDR Chris Nettles

Others attending:

Jeffrey M. Ramos

Committee: Navigation Equipment

Chairman: Allison Ross

Members:

Rodney Gregory
Mickey DeHart
Michael Nesbitt
Pamela Hom
Ann Sanborn
Gene Reil
Gary Welsh
Stephen Hung
Reginald McKamie

Coast Guard

Representative:

Ed Larue

Others attending:

Barney Turlo
Martain W. Gould, Jr.
Harvey Wade
Bruce Fisher
Chris Young